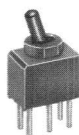


- **NEW—IMPROVED CONSTRUCTION—SAME TERMINAL SPACING ON BOTH SP AND DP MODELS.**
- **7 NEW SINGLE POLE P.C. TERMINAL STYLES—THRU-HOLE AND SURFACE MOUNT.**
- **PROCESS COMPATIBLE-WITHSTANDS IR AND VAPOR PHASE REFLOW SOLDERING AND CLEANING PROCESSES-HIGH TEMPERATURE MATERIALS (UL 94V-0).**
- **SEALED CONSTRUCTION—INTERNAL ACTUATOR O-RING, EPOXY BASE SEAL.**
- **TIN-LEAD ALLOY COATS ALL SIDES OF TERMINALS.**
- **SURFACE MOUNT MODELS AVAILABLE ON TAPE AND REEL FOR AUTOMATED PLACEMENT.**

## SP MODELS WITH C TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
<b>GT11MCKE</b>	ON	NONE	ON
<b>GT13MCKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT	Note: Pins 4 and 6 not connected		
<b>GT12MCKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST	Note: Pins 4 and 6 not connected		

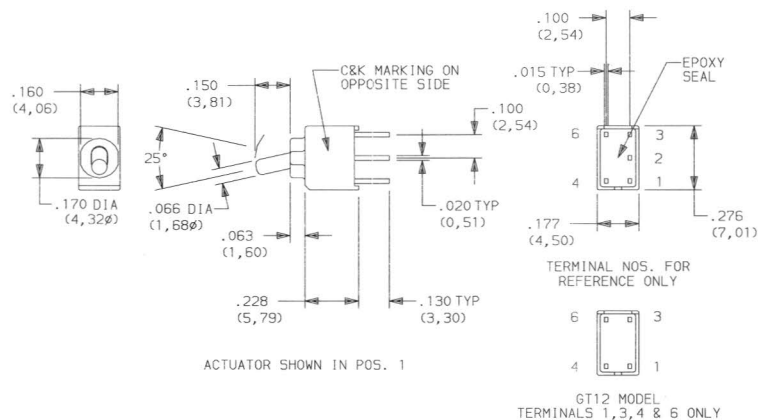


GT11 SPDT



GT12 SPST

## SPST and SPDT

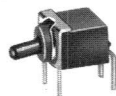


## SP MODELS WITH A TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
<b>GT11MAKE</b>	ON	NONE	ON
<b>GT13MAKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT	Note: Pins 4 and 6 not connected		
<b>GT12MAKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST	Note: Pins 4 and 6 not connected		

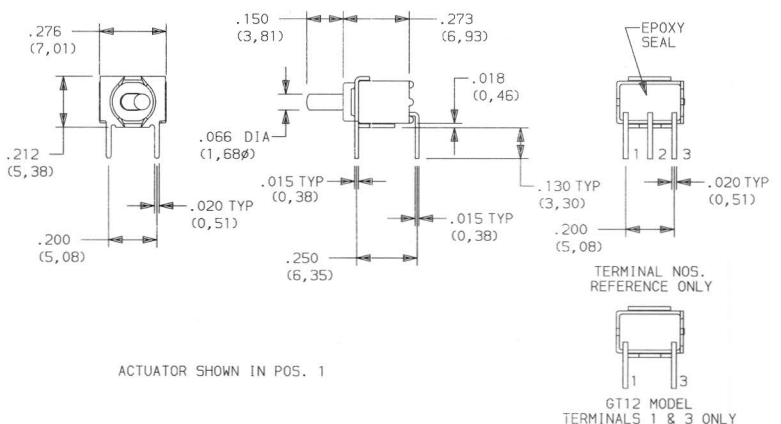


GT11 SPDT

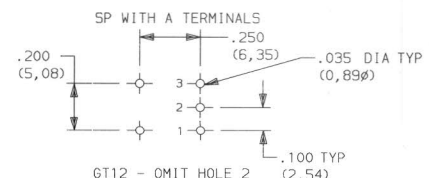
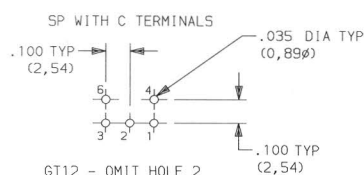


GT12 SPST




## SPST and SPDT



## P.C. MOUNTING




## SP MODELS WITH AV TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
			
<b>GT11MAVKE</b>	ON	NONE	ON
<b>GT13MAVKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1

Schematic




SPDT

<b>GT12MAVKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1

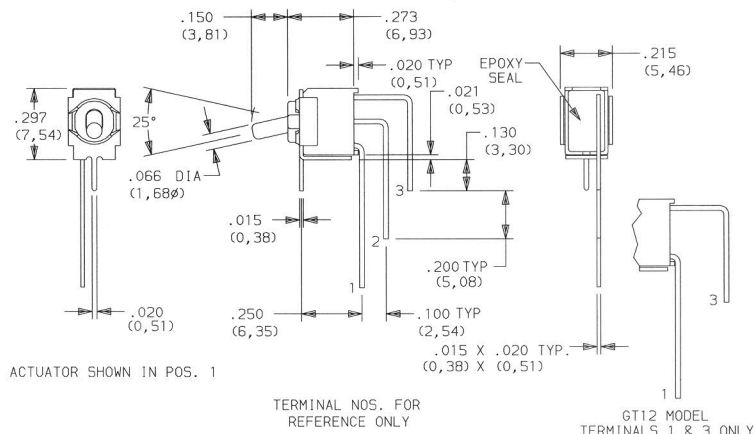
Schematic








SPST



## SPST and SPDT

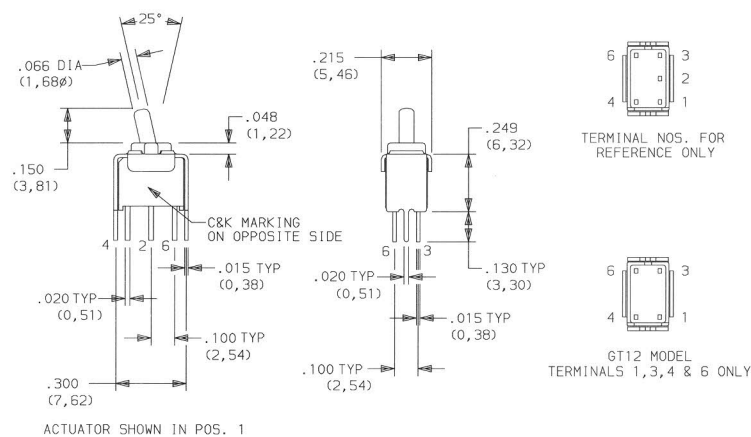


## SP MODELS WITH V3 TERMINALS




PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
			
<b>GT11MV3KE</b>	ON	NONE	ON
<b>GT13MV3KE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic  SPDT Note: Pins 4 and 6 not connected			
<b>GT12MV3KE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic  SPST Note: Pins 4 and 6 not connected			



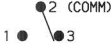
## SPST and SPDT



## SP MODELS WITH SA SURFACE MOUNT TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
			
<b>GT11MSAKE</b>	ON	NONE	ON
<b>GT13MSAKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1


Schematic



SPDT

<b>GT12MSAKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1

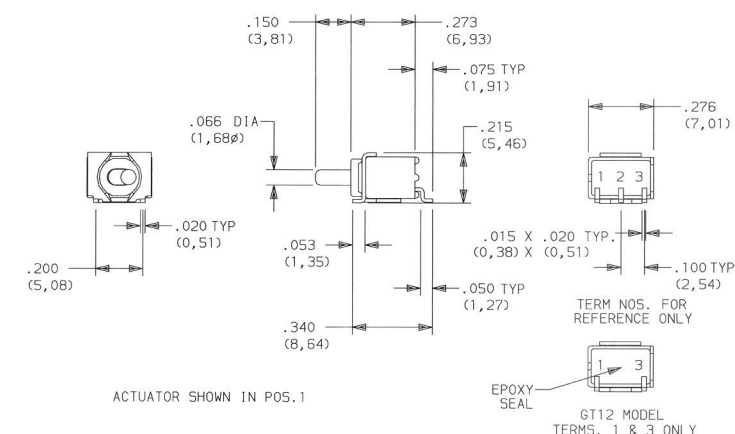
Schematic



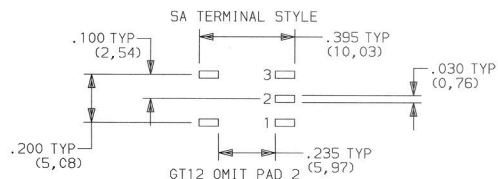
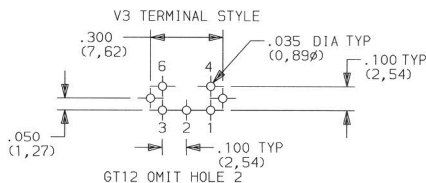
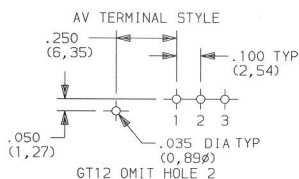
SPST



## SPST and SPDT



## P.C. MOUNTING





# GT Series **NEW**

## Sealed\* Ultra-Miniature Toggle Switches

\*Process sealed-withstands soldering and cleaning processes.

### SP MODELS WITH SC SURFACE MOUNT TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
<b>GT11MSCKE</b>	ON	NONE	ON
<b>GT13MSCKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT	Note: Pins 4 and 6 not connected		
<b>GT12MSCKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST	Note: Pins 4 and 6 not connected		

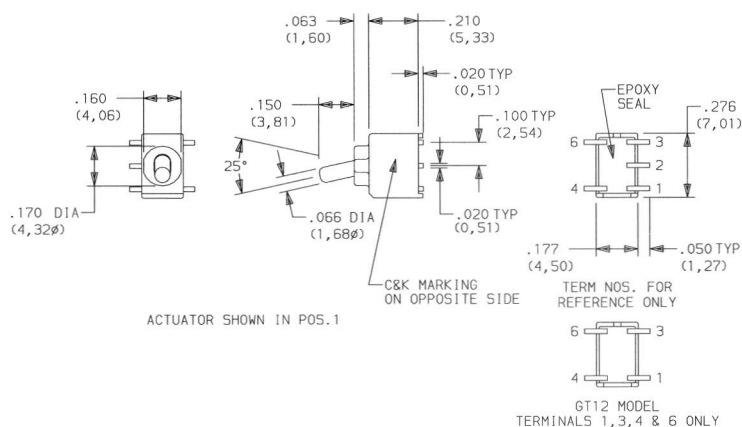


GT11  
SPDT



GT12  
SPST

#### SPST and SPDT



### SP MODELS WITH SV SURFACE MOUNT TERMINALS

PART NO.	SWITCH FUNCTION		
	POS. 1	POS. 2	POS. 3
<b>GT11MSVKE</b>	ON	NONE	ON
<b>GT13MSVKE</b>	ON	OFF	ON
Conn. Terms.	2-3	OPEN	2-1
Schematic			
SPDT	Note: Pins 4 and 6 not connected		
<b>GT12MSVKE</b>	OFF	NONE	ON
Conn. Terms.	OPEN	N/A	3-1
Schematic			
SPST	Note: Pins 4 and 6 not connected		

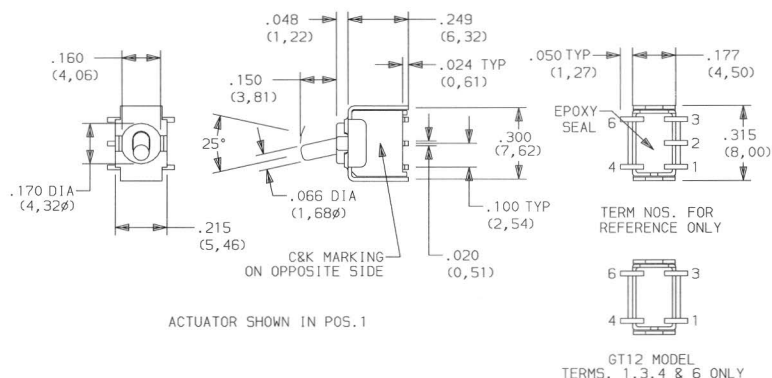


GT11  
SPDT

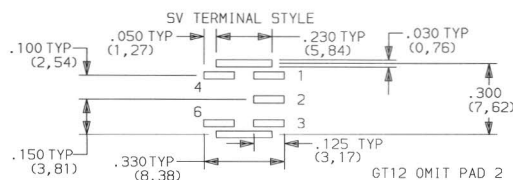
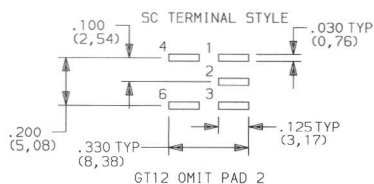


GT12  
SPST

#### SPST and SPDT



### P.C. MOUNTING



**HOW TO ORDER**

Complete part numbers for GT SERIES SEALED ULTRA-MINIATURE TOGGLE SWITCHES are shown on pages 1-3. Surface mount switches are available on embossed antistatic tape and reels, per EIA 481A, consult factory. DP models also available, see NEWTON DIVISION CATALOG NO. 9105.

For ordering or technical information, use our DIRECT SALES / CUSTOMER SERVICE NUMBER: 1-800-635-5936 or FAX (617) 527-3062. C&K manufactures the most complete line of miniature and subminiature switches in the industry.

**CAUTION:**

P.C. mounting layouts and pads as shown are designed to be compatible with the latest equipment and reflow techniques. Care should be exercised, however, in the design and location of P.C. lands to suit individual needs. Orientation relative to reflow direction may significantly impact solder joint integrity.

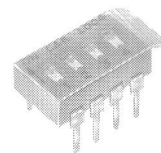
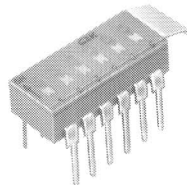
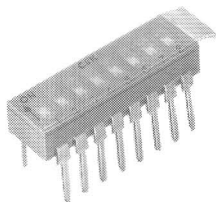
**SPECIFICATIONS**

CONTACT RATING: 0.4 VA max. @ 20 V AC or DC max.  
MECHANICAL & ELECTRICAL LIFE: 40,000 make-and-break cycles at full load.  
CONTACT RESISTANCE: Below 50 milliohms typ. initial @ 2-4 V DC, 100 mA.  
INSULATION RESISTANCE:  $10^9$  ohms min.  
DIELECTRIC STRENGTH: 500 V RMS min. @ sea level.  
OPERATING TEMPERATURE: -30°C to 85°C.  
SOLDERABILITY: Per mil std 202F method 208D, or EIA RS-186E method 9 (1 hr. steam aging).  
PACKAGING: Surface mount switches available on embossed antistatic tape and reels per EIA 481A, consult factory.

**MATERIALS**

HOUSING & BASE: Glass filled nylon 6/6 or 4/6, flame retardant, heat stabilized (UL 94V-0).  
ACTUATOR: Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0), with standard internal o-ring seal.  
SWITCH SUPPORT: Brass, tin plated.  
MOVABLE CONTACT: Phosphor bronze with gold plate over nickel plate.  
STATIONARY CONTACTS: Copper alloy, with gold plate over nickel plate.  
TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.  
TERMINAL SEAL: Epoxy. All terminals insert molded.

**Note:** Specifications and materials listed above are general specifications. Specifications available for specific and custom switches, consult factory.



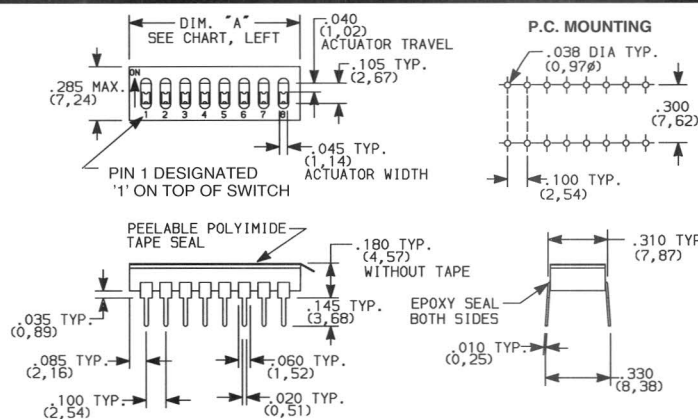
- MACHINE INSERTABLE – LOW PROFILE.
- PROCESS SEALED CONSTRUCTION – WITHSTANDS SOLDERING AND CLEANING PROCESSES – REMOVABLE POLYIMIDE TOP TAPE SEAL STD.
- DESIGNED WITH HIGH TEMPERATURE MATERIALS (UL 94V-0).
- RECESSED SLIDE ACTUATORS AND POSITIVE DETENT – PREVENT ACCIDENTAL ACTUATION.
- BIFURCATED GOLD PLATED CONTACTS – NO LUBRICANTS REQUIRED.
- TIN-LEAD ALLOY COATS ALL SIDES OF TERMINALS.

PART NO.	NO. POS.	DIM. 'A'
LD04	4	.470 (11,94)
LD05	5	.570 (14,48)
LD06	6	.670 (17,02)
LD07	7	.770 (19,56)
LD08	8	.870 (22,10)
LD10	10	1.070 (27,18)

Schematic

SPST

**NEW**  
5, 7, and 10  
Position  
Models



Part No. Shown: LD08

### HOW TO ORDER

Complete part numbers for LD SERIES SEALED LOW PROFILE DIP SWITCHES are shown above. Additional LD Series surface mount models – see next page. For ordering or technical information use our DIRECT SALES/CUSTOMER SERVICE NUMBER: 1-800-635-5936 or FAX: (617)527-3062. C&K manufactures the most complete line of miniature and subminiature switches in the industry. Request catalog no. 9105.

### SPECIFICATIONS

**SWITCH FUNCTION:** SPST– 4, 5, 6, 7, 8, 10 pos.

**CONTACT RATING:**  
Carry: 100 mA max. @ 50 V DC.  
Switch: 100 mA max @ 5 V DC or 25 mA max. @ 25 V DC.

**MECHANICAL & ELECTRICAL LIFE:** 2,000 make-and-break cycles at full load, each circuit.

**CONTACT RESISTANCE:** Below 50 milliohms typ. initial @ 2-4 V DC, 100 mA.

**INSULATION RESISTANCE:** 10<sup>9</sup> ohms min.

**DIELECTRIC STRENGTH:** 500 V RMS min. @ sea level between adjacent terminals.

**CAPACITANCE:** 5 pF max. between adjacent terminals.

**STORAGE & OPERATING TEMPERATURE:** -40°C to 85°C.

**SOLDERABILITY:** Per mil std 202F method 208D, or EIA RS-186E method 9 (1 hr. steam aging).

**PACKAGING:** Switches supplied in rigid dispensing tubes. Switch pos. 1 denotes pin no. 1. All switch actuators in "OFF" position std. Tape and reel packaging per EIA 481A also available, consult factory.

### MATERIALS

**CASE & COVER:** High temperature glass filled polyester (PET), or glass filled LCP (UL 94V-0).

**ACTUATOR:** Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0).

**CONTACTS:** Copper alloy, with gold plate over nickel plate.

**TERMINALS:** Copper alloy, with tin-lead alloy over nickel plate.

**TAPE SEAL:** Polyimide.

**TERMINAL SEAL:** Epoxy. All terminals insert molded.

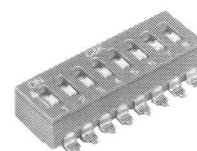
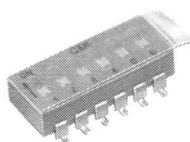
Note: Specifications and materials listed above are general specifications. Specifications available for specific and custom switches, consult factory.



LD SERIES

## Sealed\* Low Profile Surface Mount DIP Switches

\* Process sealed – withstands soldering and cleaning processes.



Note: transparent tape shown for clarity. Reflective aluminum tape is opaque.

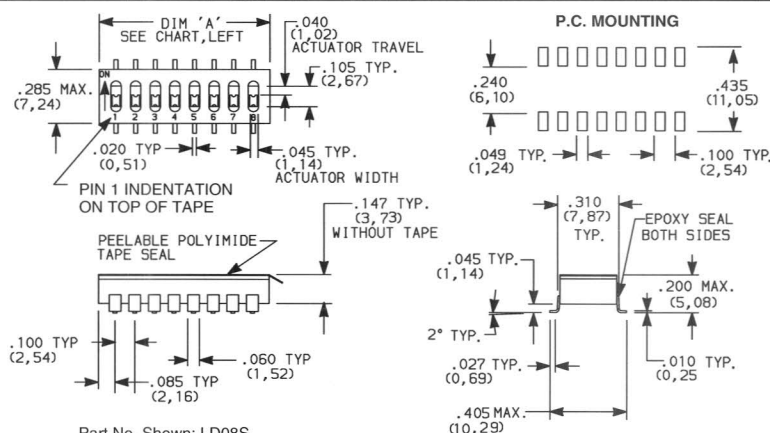
- **LOW PROFILE DESIGN – SPST – 4, 5, 6, 7, 8, 10 POS.**
- **BIFURCATED GOLD PLATED METAL CONTACTS – NO LUBRICANTS REQUIRED.**
- **PROCESS SEALED CONSTRUCTION – WITHSTANDS IR AND VAPOR PHASE REFLOW SOLDERING AND CLEANING PROCESSES – REMOVABLE REFLECTIVE POLYIMIDE TOP TAPE SEAL STD.**
- **RECESSED SLIDE ACTUATORS AND POSITIVE DETENT – PREVENT ACCIDENTAL ACTUATION.**
- **TIN-LEAD ALLOY COATS ALL SIDES OF TERMINALS.**
- **DESIGNED FOR SURFACE MOUNTING – HIGH TEMPERATURE MATERIALS (UL 94V-0).**

PART NO.	NO. POS.	DIM. 'A'
LD04S	4	.470 (11,94)
LD05S	5	.570 (14,48)
LD06S	6	.670 (17,02)
LD07S	7	.770 (19,56)
LD08S	8	.870 (22,10)
LD10S	10	1.070 (27,18)

Schematic	
SPST	

NEW

5, 7, and 10  
Position  
Models

Part No. Shown: LD08S

## HOW TO ORDER

Complete part numbers for LD SERIES SEALED LOW PROFILE SURFACE MOUNT DIP SWITCHES are shown above. Additional LD Series thru-hole PC mount models – see previous page. For ordering or technical information use our DIRECT SALES/CUSTOMER SERVICE NUMBER: 1-800-635-5936 or FAX: (617)527-3062. C&K manufactures the most complete line of miniature and subminiature switches in the industry. Request catalog no. 9105.

## SPECIFICATIONS

**SWITCH FUNCTION:** SPST– 4, 5, 6, 7, 8, 10 pos.

**CONTACT RATING:**  
 Carry: 100 mA max. @ 50 V DC.  
 Switch: 100 mA max @ 5 V DC or 25 mA max. @ 25 V DC.

**MECHANICAL & ELECTRICAL LIFE:** 2,000 make-and-break cycles at full load, each circuit.

**CONTACT RESISTANCE:** Below 50 milliohms typ. initial @ 2-4 V DC, 100 mA.

**INSULATION RESISTANCE:**  $10^9$  ohms min.

**DIELECTRIC STRENGTH:** 500 V RMS min. @ sea level between adjacent terminals.

**CAPACITANCE:** 5 pF max. between adjacent terminals.

**STORAGE & OPERATING TEMPERATURE:** -40°C to 85°C.

**SOLDERABILITY:** Per mil std 202F method 208D, or EIA RS-186E method 9 (1 hr. steam aging).

**PACKAGING:** Switches supplied in rigid dispensing tubes. Indentation on top of tape denotes pin no. 1. All switch actuators in "OFF" position std. Tape and reel packaging per EIA 481A also available, consult factory.

## MATERIALS

**CASE & COVER:** High temperature glass filled polyester (PET), or glass filled LCP (UL 94V-0).

**ACTUATOR:** Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0).

**CONTACTS:** Copper alloy, with gold plate over nickel plate.

**TERMINALS:** Copper alloy, with tin-lead alloy over nickel plate.

**TAPE SEAL:** Polyimide, with reflective aluminum.

**TERMINAL SEAL:** Epoxy. All terminals insert molded.

Note: Specifications and materials listed above are general specifications. Specifications available for specific and custom switches, consult factory.

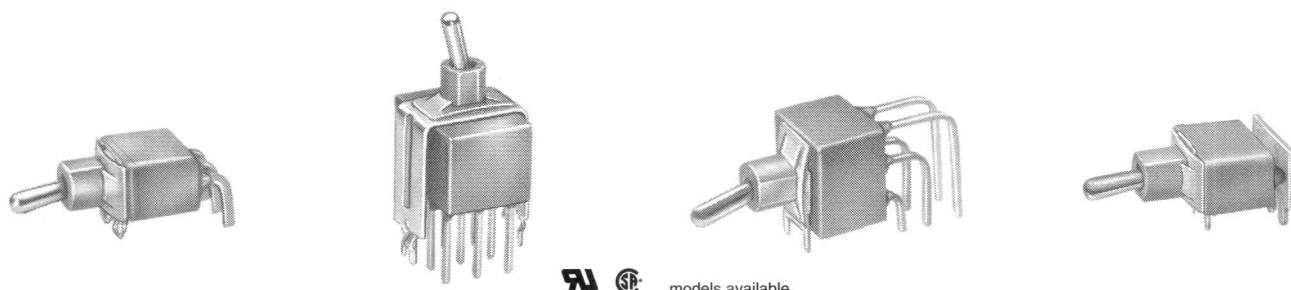


COMPONENTS, INC.

15 Riverdale Ave. Newton, MA 02158-1082

Tel: (617) 964-6400, Telex: 92-2544, Fax: (617) 527-3062



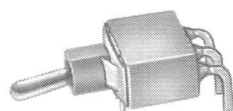


models available.

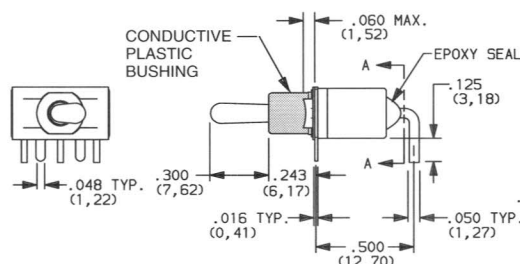
- **CONDUCTIVE BUSHING – CARBON FIBER IMPREGNATED – DISSIPATES ELECTROSTATIC DISCHARGE (ESD) UP TO 20,000 VOLTS FROM ACTUATOR TO GROUND.**
- **HIGHER VOLTAGE DISSIPATION THAN INSULATION AND SEPARATION METHODS.**
- **AVAILABLE WITH ALL TOGGLE OPTIONS AND P.C. MOUNTED SWITCHES WITH SUPPORT BRACKETS.**
- **PROCESS SEALED CONSTRUCTION – WITHSTANDS SOLDERING AND CLEANING PROCESSES.**

Recognized under the Component Program of Underwriters Laboratories, Incorporated.

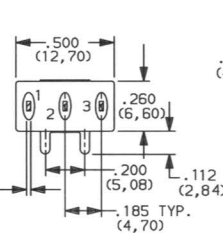
### TYPICAL E SERIES SWITCH WITH F1 CONDUCTIVE BUSHING



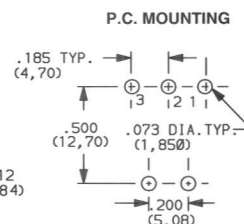
SPDT Shown  
DPDT and 3PDT Available



Part No. Shown: E101MF1ABE








SECTION A-A



TERM. NOS. FOR  
REFERENCE ONLY

Typical model shown. **F1** Conductive Bushing Option is available with the following E Series options: Terminations: All P.C. terminal styles with metal switch support bracket; All Switch Function, Actuator, Contact Material and Seal options available. See Newton Division Catalog No. 9105 for complete E Series specifications.

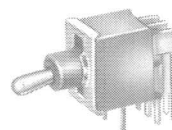
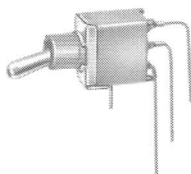
### AVAILABLE OPTIONS

SWITCH FUNCTION	ACTUATOR	CONDUCTIVE BUSHING	TERMS.	CONTACT MATERIAL	SEAL	ACTUATOR COLOR	
1 2 3				Gold Epoxy		Chrome	
							
E101	E301	L3	F1	A	V2	B	E (NONE)
E103	E303	M		A3	V3	G	1
E105	E305	S		AV1	V4	K	2
E107	E307			AV2	V6	L	3
E108	E308			AV3	V7	M	4
E201				AV4	V8	Q	5
E203				AV5	V9		6
E205				AW	V21		7
E207				AW1	V31		8
E208				AW3	V41		9
E211				AW4	V61		
E213				AW5	V71		
E215				R	V81		
				R2	V91		

### HOW TO ORDER

To order E SERIES ESD-RESISTANT SEALED TOGGLE SWITCHES, specify **F1** Conductive Bushing Option. All available options shown with ordering format, left. For complete E Series specifications, request Newton Division Catalog No. 9105.

For ordering or technical information, use our **DIRECT SALES/CUSTOMER SERVICE NUMBER: 1-800-635-5936** or FAX: (617) 527-3062.

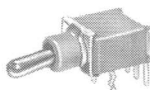


models available

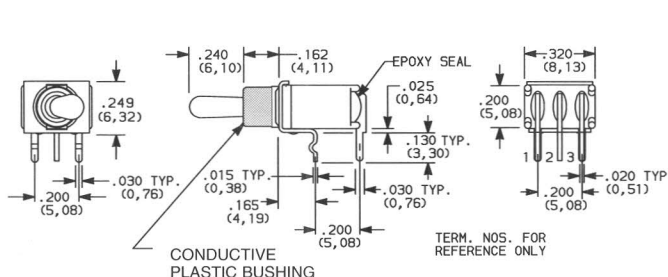
- CONDUCTIVE BUSHING – CARBON FIBER IMPREGNATED – DISSIPATES ELECTROSTATIC DISCHARGE (ESD) UP TO 20,000 VOLTS FROM ACTUATOR TO GROUND.
- HIGHER VOLTAGE DISSIPATION THAN INSULATION AND SEPARATION METHODS.
- AVAILABLE WITH ALL METAL TOGGLE OPTIONS AND P.C. MOUNTED SWITCHES WITH SUPPORT BRACKETS.
- PROCESS SEALED CONSTRUCTION – WITHSTANDS SOLDERING AND CLEANING PROCESSES.

Recognized under the Component Program of Underwriters Laboratories, Incorporated.

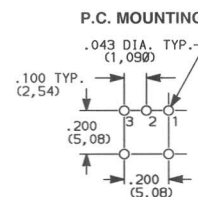
### TYPICAL ET SERIES SWITCH WITH F1 CONDUCTIVE BUSHING



**SPDT Shown  
DPDT Available**

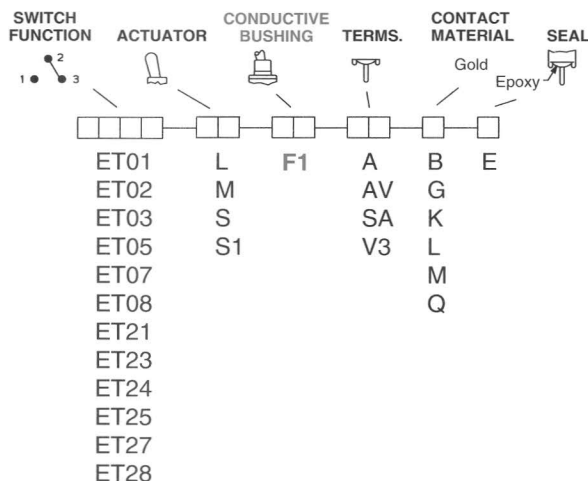


Part No. Shown: ET01MF1ABE



Typical model shown. **F1** Conductive Bushing Option is available with the following ET Series options: Actuator: all except M3 plastic act.; Terminations: All P.C. terminal styles with metal switch support bracket (including surface mount); All Switch Function, Contact Material and Seal options available. See Newton Division Catalog No. 9105 for complete ET Series specifications.

## AVAILABLE OPTIONS



## HOW TO ORDER

To order ET SERIES ESD-RESISTANT SEALED TINY TOGGLE SWITCHES, specify **F1** Conductive Bushing Option. All available options shown with ordering format, left. For complete ET Series specifications, request Newton Division Catalog No. 9105.

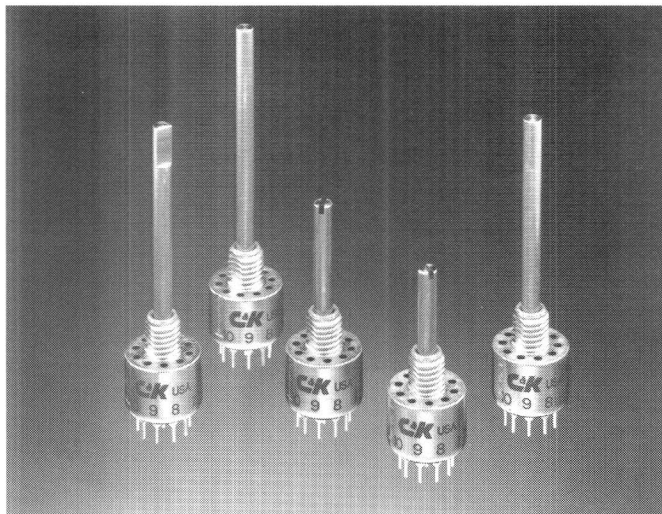
For ordering or technical information, use our DIRECT  
SALES/CUSTOMER SERVICE NUMBER: 1-800-635-5936  
or FAX: (617) 527-3062.





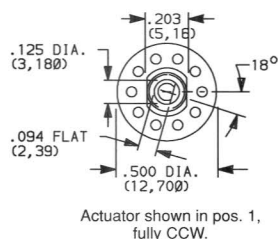
NEW

## Stainless Steel Actuators for M Series Rotary Switches



- HIGH STRENGTH STAINLESS STEEL ACTUATOR SHAFTS – ANY CUSTOM LENGTH AND END CONFIGURATION.
- SPLASHPROOF SHAFT AND PANEL SEALS AVAILABLE.
- ONE AND TWO POLE MODELS – INDEXING 30° (12 POS. MAX.) AND 36° (10 POS. MAX) AVAILABLE.
- RATINGS FROM LOW LEVEL TO 250 mA @ 125 V AC OR 28 V DC (WILL CARRY 6 AMPS CONTINUOUS).
- MODELS WITH AND WITHOUT STOPS AVAILABLE.

### M SERIES ROTARY SWITCHES WITH HIGH STRENGTH STAINLESS STEEL ACTUATOR SHAFTS: TYPICAL MODEL

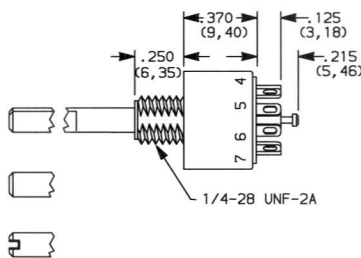


#### TYPICAL END CONFIGURATIONS

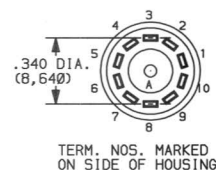
FLAT

PLAIN

SCREW-DRIVER



VIRTUALLY ANY LENGTH AVAILABLE



### HOW TO ORDER

For ordering or technical information, use our DIRECT SALES/CUSTOMER SERVICE NUMBER:

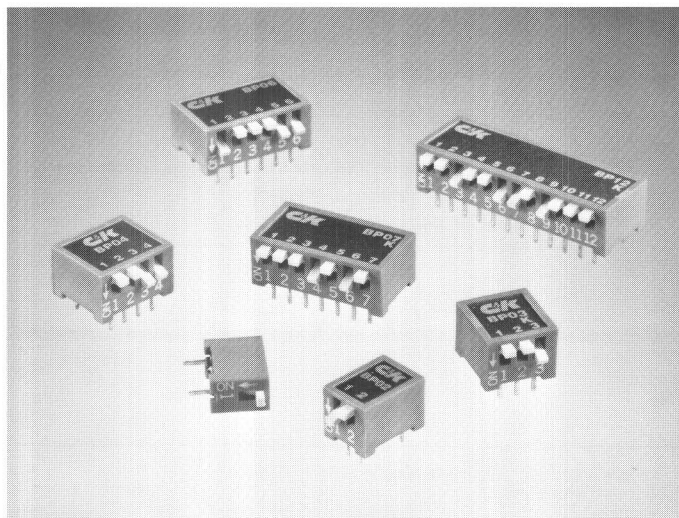
1-800-635-5936 or FAX: (617) 527-3062.

For complete specifications on M SERIES ROTARY SWITCHES, request catalog no. 9105.



COMPONENTS, INC. 15 Riverdale Ave. Newton, MA 02158-1082 Tel: (617) 964-6400, Telex: 92-2544, Fax: (617) 527-3062





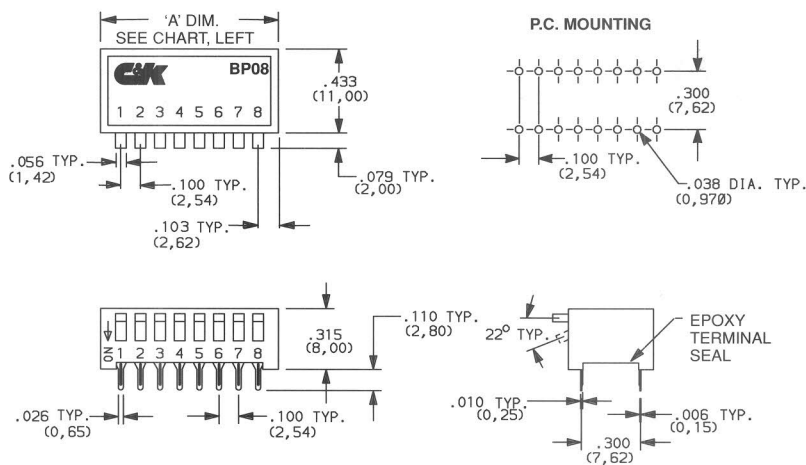
- HIGH TEMPERATURE MATERIALS (UL 94V-0) – WITHSTANDS SOLDERING TEMPERATURES.
- SPST SWITCH FUNCTION – 1, 2, 3, 4, 5, 6, 7, 8, 10, & 12 POSITION MODELS. REVERSE THROW MODELS AVAILABLE.
- SIDE ACTUATORS WITH POSITIVE DETENT.
- RELIABLE WIPING CONTACT MECHANISM – SELF CLEANING.
- GOLD AND TIN PLATED CONTACTS AVAILABLE. ALL TERMINALS TIN PLATED FOR SOLDERABILITY.
- EPOXY TERMINAL SEAL STANDARD. TAPE SEAL AVAILABLE. SPLASH RESISTANT.

MODEL

MODEL NO.	NO. POS.	DIM. 'A'
BP01	1	.217 (5,50)
BP02	2	.315 (8,00)
BP03	3	.413 (10,50)
BP04	4	.512 (13,00)
BP05	5	.610 (15,50)
BP06	6	.709 (18,00)
BP07	7	.807 (20,50)
BP08	8	.906 (23,00)
BP10	10	1.102 (28,00)
BP12	12	1.299 (33,00)

**Schematic:**

SPST

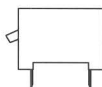
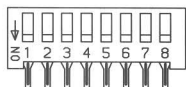


Part No. Shown: BP08KE

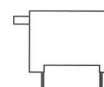
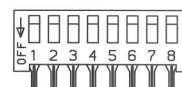
SWITCH FUNCTION ☐ ☐ ☐

(NONE) STD. THROW

R REVERSE THROW



Actuator is DOWN in ON position, as shown.



Actuator is UP in ON position, as shown.



BP Series

NEW

# Side Actuated DIP Switches

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
K	GOLD <sup>1</sup>	TIN <sup>2</sup>	LOW LEVEL/ DRY CIRCUIT	CARRY: 100 mA max. @ 50 V DC;
Y	TIN <sup>2</sup>	TIN <sup>2</sup>		SWITCH: 100 mA max. @ 5 V DC or 25 mA max. @ 25 V DC.

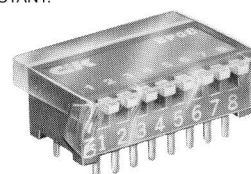
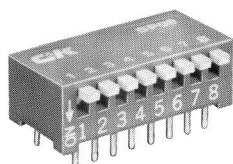
<sup>1</sup> CONTACTS: Gold over nickel over phosphor bronze.

<sup>2</sup> CONTACTS & ALL TERMINALS: Phosphor bronze, tin plated.

SEAL

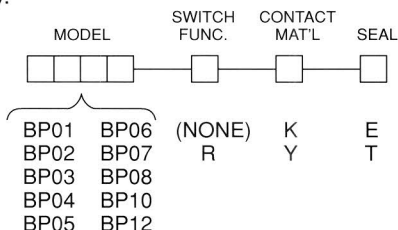
E (STD.) EPOXY TERMINAL SEAL, NO TAPE SEAL

T EPOXY TERMINAL SEAL, REMOVABLE TAPE ACTUATOR SEAL. SPLASH RESISTANT.



## HOW TO ORDER

All available BP SERIES SIDE ACTUATED DIP SWITCHES are listed below and described above and on previous page. When selecting options and building a part number, some ordering format boxes may not be filled. Dashes, hyphens or spaces in the part number are not significant and are shown for clarity only.



For ordering or technical information, use our DIRECT SALES/CUSTOMER SERVICE NUMBER:

1-800-635-5936 or FAX: (617) 527-3062.

C&K manufactures the most complete line of miniature and subminiature switches in the industry. Request catalog no. 9105.

## SPECIFICATIONS

SWITCH FUNCTION: SPST- 1, 2, 3, 4, 5, 6, 7, 8, 10, 12 pos. avail.

CONTACT RATING:

Carry: 100 mA max. @ 50 V DC.

Switch: 100 mA max @ 5 V DC or 25 mA max. @ 25 V DC.

MECHANICAL & ELECTRICAL LIFE: 2,000 make-and-break cycles each circuit, models with gold contacts (K contact mat'l). 1,000 cycles, models with tin contacts (Y contact mat'l).

CONTACT RESISTANCE: Below 50 milliohms typ. initial @ 2-4 V DC, 100 mA.

INSULATION RESISTANCE: 10<sup>9</sup> ohms min.

DIELECTRIC STRENGTH: 500 V RMS min. @ sea level between adjacent terminals.

STORAGE & OPERATING TEMPERATURE: -20°C to 60°C.

SOLDERABILITY: Per mil std 202F method 208D, or EIA RS-186E method 9 (1 hr. steam aging).

PACKAGING: Switches supplied in rigid dispensing tubes. Switch pos. 1 denotes pin no. 1. All switch actuators in "OFF" position std.

## MATERIALS

CASE: Glass filled polyester (PET), flame retardant (UL 94V-0).

COVER: Anodized aluminum.

ACTUATOR: Glass filled polyester (PET), flame retardant, (UL 94V-0).

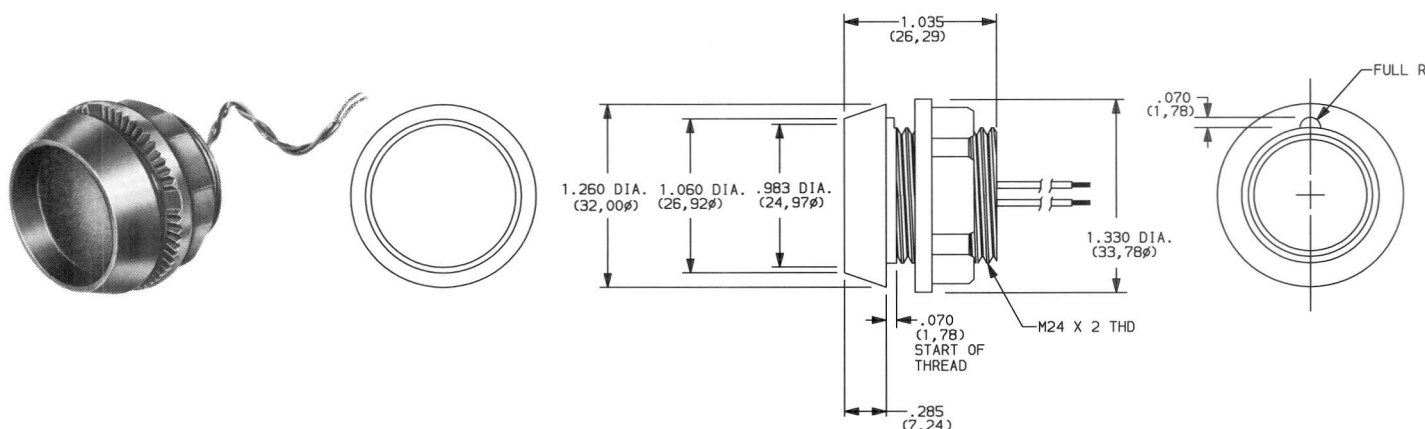
CONTACTS: Gold over nickel over phosphor bronze (K contact mat'l) or phosphor bronze, tin plated (Y contact mat'l).

TERMINALS: All terminals phosphor bronze, tin plated.

TERMINAL SEAL: Epoxy.

Note: Specifications and materials listed above are general specifications. Specifications available for specific and custom switches, consult factory.

- **EXTREMELY LONG LIFE – ELECTRONIC SWITCHING – NO MOVING PARTS.**
- **INTERFACES WITH ALL DIGITAL LOGIC CIRCUITRY – CAN SWITCH BOTH AC AND DC CIRCUITS – SHOCKPROOF REMOTE SWITCH.**
- **ONE-PIECE HOUSING – HERMETICALLY SEALED – IMMERSIBLE.**
- **WITHSTANDS HARSH ENVIRONMENTS AND TEMPERATURE EXTREMES – INSENSITIVE TO SHOCK, STATIC DISCHARGE, MAGNETIC FIELDS, VIBRATION.**
- **NO CONTACT ARCING OR BOUNCING – NO MECHANICAL WEAR.**



The PIEZOELECTRIC EFFECT (known since 1880), is the generation of electrical charges by a force applied to a piezo crystal. In C&K's new KP SERIES PIEZO-PULSE SWITCH, both switching circuit and piezo crystal are sealed into a rugged one-piece assembly, impervious to dust, liquids, temperature extremes and other environmental conditions. Light pressure on the switch induces a voltage which drives the integral switching circuitry.

#### AVAILABLE ELECTRICAL CHARACTERISTICS (RANGES):

RATING (MODEL SHOWN): 200 mA continuous, 800 mA pulsed,  
50 volts maximum.  
OTHER AVAILABLE RATINGS: From 0-1,000 V, From 0-15 AMPS.  
ELECTRICAL LIFE: Unlimited.  
CONTACT RESISTANCE: SWITCH ON: <7.5 ohms;  
SWITCH OFF: >5 megaohms.

INSULATION RESISTANCE:  $10^9$  ohms min.  
DIELECTRIC STRENGTH: 2,500 V RMS min. @ sea level.  
ACTUATION FORCE: 2 oz. typ.  
OPERATING TEMPERATURE: -40°C to 100°C.

Consult factory for specifications for specific models.

For more information on KP SERIES PIEZO-PULSE switches or any of our other switch products,

call: 1-800-635-5936

or FAX: (617) 527-3062

